ARMY MEDICINE
Serving To Heal...Honored To Serve

Food Handler's Training

Environmental Health Section
Department of Preventive Medicine
Bldg. 4555
803-751-5200/1704

Requirements for Temporary Food Establishments

- A *Temporary Food Establishment* operates for a period of no more than 14 consecutive days in conjunction with a single event or celebration.
  - An organization with a cookout, chapel suppers, pot luck & other similar events are NOT considered temporary food establishments (Unless there is money being charged for services).

- **TB MED 530**/NAVMED P-5010-1/AFMAN 48-147_IP, Tri-Service Food Code specifies requirements for vendor application to operate a food establishment, employee training, and safe food handling practices.
  - Submit an application to operate to the Preventive Medicine office at least 30 days prior to the scheduled event or opening of the operation.
  - Pass a pre-operational inspection conducted by Preventive Medicine prior to serving customers. (Special Events, Vendors and AAFES contracts only)
  - Food operation person in charge must possess a valid Food Protection Manager Certification. (When using Potentially Hazardous Food (PHF))
  - When using PHFs, person in charge must remain on site at all times when the food operation is open for business.
  - Food service workers must be trained to perform prescribed duties in a safe manner and in accordance with the prescribed sanitation and food safety requirements.

Purpose and Objective

- **PURPOSE –** This training is designed to familiarize family readiness groups and Non-profit organizations operating a temporary food establishment with the basic principles of food safety that must be applied when conducting food operations on military installations.

- **OBJECTIVE –** The objective for adhering to established food safety principles is to prevent the occurrence of foodborne illness.

- **SCOPE OF TRAINING -**
  - Understand factors that contribute to foodborne illness.
  - Understand controls that will minimize the risk of foodborne illness.

Training Outline

- ❑ Foodborne Illnesses
- ❑ Food Safety Hazards
- ❑ Biological Hazards & the Nature of Bacteria
- ❑ Key Terms
- ❑ Foodborne Illness Risk Factors
- ❑ Food Protection During Storage
- ❑ Layers of Protection
- ❑ Personal Hygiene & Work Habits
- ❑ Proper Cleaning & Sanitizing
- ❑ Time & Temperature Controls
- ❑ Requirements for an Event

Foodborne Illnesses

- Only a small percentage of actual foodborne illness cases every get reported.
- The CDC estimates that 76 million illnesses happen each year.
- There are about 325,000 hospitializations and 5,000 deaths each year from foodborne illnesses.
- Foodborne illnesses do occur on military installations. In 2013, an outbreak occurred in a training population resulting in over 150 Soldiers with nasuea, vomiting and diarrhea.
- Personnel who prepare food play a vital role in the prevention of foodborne illnesses by:
  - Adhering to prescribed food safety measures; and
  - Maintaining sanitary controls within food operations.

Food Safety Hazards

- Harmful substances that present a food safety hazard can be chemical, physical, or biological in nature and may result in injury or illness when ingested.
  - Chemical: detergents, sanitizing agents, pesticides, fuels, etc.
    - Contamination of food or food contact surfaces (equipment/utensils) occurs through direct contact with chemicals or chemical residues following improper use or storage.
  - Physical: bone fragments, glass, toothpicks, etc.
    - When physical hazards such as insects and hair come into contact with food, biological contaminants contained on their surfaces are transferred to the food.
  - Biological: bacteria, viruses, parasites, yeasts, molds, etc.
    - Biological hazards contribute to almost two-thirds of all foodborne illnesses outbreaks.

Biological Hazards and the Nature of Bacteria

- Bacteria are microscopic and cannot be seen by the naked eye.
  - Hundreds or thousands of bacteria may already exist on raw foods when purchased.
- The right temperature, moisture, and food are needed for bacteria to survive and multiply.
  - Under ideal conditions, bacteria can double in numbers every 15-20 minutes.
- Some bacteria product toxins and/or spores.
  - Bacteria in food can cause:
    - Infection – illness caused by ingesting a sufficient amount of live bacteria.
    - Intoxication – illness caused by ingesting the toxic residues deposited in food when the bacteria was alive.

Key Terms

- A **foodborne illness outbreak** is defined as 2 or more cases of a similar illness resulting from the ingestion of a common food.
  - Ice and beverages are included as a “food”
- **Contaminated** is the presence of harmful substances (physical, chemical, or biological) in food.
- **Clean** to sight and touch means there is no visible debris, encrusted food, or greasy feeling.
- **Sanitize** is a process of reducing the total number of micro-organisms (germs) on a surface to safe levels.

Key Terms

- **Cross-contamination** is the transfer of harmful substances to food through direct or indirect contact:
  - Spilled chemicals or detergents on food packages or surfaces where food comes into direct contact such as plates, silverware, and food prep tables.
  - Using un-sanitized equipment or utensils to prepare, store, or serve food.
  - Bare hand contact with foods that are ready-to-eat (RTE) such as fresh fruits, sandwiches, salad vegetables, and deli meats and cheeses.
  - Bacteria from raw foods transferred to foods that are ready-to-eat.
    - Blood from raw meat dripping onto RTE foods stored on a lower shelf in the refrigerator.
    - Cutting boards and knives used to prepare raw meat are not cleaned and sanitized and are then used to prepare RTE foods.

Key Terms

- **Potentially Hazardous Food (PHF)** is a food that requires time or temperature control for safety to limit the growth of harmful micro-organisms or the formation of toxins:
  - Raw or heat-treated (cooked) animal food – *meat, polutry, seafood, dairy products.*
  - Heat-treated plant food – *rice, pasta, baked potato, fried onions, cooked apples.*
  - Cut plant foods – *cut tomatoes, cut leafy greens (spinach/salad), cut melons, chopped garlic in oil*
  - Raw seed sprouts.
  - Cream pies
  - Gravies.

Foodborne Illness Risk Factors

- There are 5 major risk factors (or conditions) related to employee behaviors and food preparation practices that contribute to foodborne illness:
  - **Food from unsafe sources**: Food must be obtained from sanitary sources that conform to local, state, and federal statutes and regulations. ***Veterinary Services approves all food sources on Fort Jackson.***
  - **Inadequate cooking:** Food must be cooked to prescribed temperatures in order to kill any residual bacteria, viruses, or parasites that might be in or on the food.
  - **Improper holding temperatures:** Potentially hazardous foods must be held at proper cold (40°F) holding and hot (140°F) holding temperatures to prevent growth of bacteria.
  - **Contaminated equipment:** Food contact surfaces must be cleaned and sanitized to prevent cross-contaminated of food.
  - **Poor personal hygiene:** Food employees must adhere to standards of hygiene to prevent contamination of food contact surfaces and food.

Food Protected During Storage

- Protect from contamination when stored in refrigerators/freezers/ice chests.
  - All food must be wrapped or held in a covered container.
  - Food packaging/containers should be closed/covered so that there is no exposed food.
  - Food containers or packaging must be impermeable to protect from melting ice when stored in ice chests.
  - Storage units must be kept clean; free of residual food debris.
- Cover food (and containers of food) when held in hold or cold holding during service periods.
- Always examine food and food containers for signs of contamination or spoilage before use.

Layers of Protection

- Apply multiple levels of control called *Layers of Protection* is the underlying principle for reducing the risk of foodborne illness from biological hazards.
  - Good personal hygiene and work habits represent the first layer of protection to prevent transferring biological contaminants to food and surfaces that generally come into contact with food.
  - Proper cleaning and sanitizing is the second layer of protection that prevents cross-contamination of food by removing harmful agents from surfaces.
  - The third layer, time and temperature controls, are employed to prevent the growth of harmful microorganisms that may already exist in food.

Personal Hygiene and Work Habits

“Hand-washing is the single most important means to preventing the spread of infection” – *Center for Disease Control and Prevention*

- People are natural carriers of bacteria –
  - Staph bacteria is found on skin and hair, regardless of how often you bathe.
  - Bacteria such as E. Coli are found in our intestines. When you go to the bathroom, hands become contaminated with bacteria which are transferred to everything you touch.
- People can also carry harmful viruses that are readily transmitted through food or contact with surfaces that are touched by others -
  - Norovirus is an example; it can live on surfaces such as door handles, dishes, or chairs for several days (*Generally the cause of disease on cruise ships).*
  - Infection occurs when contaminated food is ingested or contaminated hands come into contact with mucous membranes (eyes, nose, mouth).

When Should You Wash Your Hands?

“Hand-washing is the single most important means to preventing the spread of infection” – *Center for Disease Control and Prevention*

- ❑ Before beginning work
- ❑ After using toilet facilities
- ❑ After smoking, eating, applying lip balm, or taking a break
- ❑ Before putting on disposable gloves and between glove changes.
  - ❑ *Change gloves between food tasks and non-food tasks such as preparing food and handling money or restocking supplies and food/condiments.*
- ❑ Before handling cleaned and sanitized equipment and utensils.
- ❑ After every change of contamination.
  - ❑ *Performing custodial tasks such as handling soiled equipment and utensils or trash*
  - ❑ *Touching hair, face, nose, mouth, etc.*
- ❑ Before conducting any task involving food handling.

Handwashing Sinks

- A dedicated handwashing sink must be provided at the food concession for food employee use only.
- Hand sanitizer cannot be used as a substitute for handwashing.
- Handwashing sinks must be stocked with:
  - *Soap*
  - *Hot water*
  - *Disposal paper towels*
  - *Garbage receptacle*
- Handwashing procedures:
  - *Later all exposed skin up to mid-forearm*
  - *Scrub lathered skin for up to 20 seconds*
  - *Rinse & dry with disposable paper towel*

Hygiene Standards

- Fingernails:
  - *Neatly trimmed and smooth*
  - ***NO** fingernail polish, false nails, nail ornaments or jewelry.*
- No eating or drinking in food preparation or serving areas.
  - *<u>Exception:</u> Water in a closed container.*
  - *Used only designated break areas away from food serving and preparation.*
- When disposable gloves are worn you must change:
  - *Between handling soiled and cleaned/sanitized equipment and utensils*
  - *After handling trash*
  - *After wiping tables/counters*
  - *Before handling money*
  - *When gloves become torn*

Cleaning and Sanitizing

- Equipment and utensils will be cleaned and sanitized when they become soiled or contaminated in:
  - *Hot soapy water*
  - *An approved bleach solution.*
- Test sanitizing concentrations by:
  - *Using test kits or test paper*
  - *Minimum concentration should be 100 ppm*
  - *Maximum concentration should be 200 ppm*
- Prepare bleach solution:
  - *Use a 1 gallon container*
  - *Add ½ tablespoon of bleach to 1 gallon of water*
  - *Shake well, verify concentration, then fill individual spray bottles*
  - *Prepare fresh for every event*

Time & Temperature Control

- Hot foods:
  - *Must be maintained at 140°F or above during holding.*
  - *Cooked to appropriate temperatures:*
    - *Poultry, poultry and stuffed foods: 165°F.*
    - *Pork, ground beef, fish, and bulk scrambled eggs: 155°F.*
    - *Lamb, veal, made-to-order eggs: 145°F.*

- Cold foods:
  - *Must be maintained at 40°F or below.*
  - *Frozen foods **must remain frozen.***

- Three approved thawing techniques:
  - *In running water of 70°F (least preferred method).*
  - *In the microwave as part of the conventional cooking process.*
  - *In the refrigerator. After removal from freezer, product must be used within 7 calendar days (preferred method).*

Requirements for Events

- Food Permits:
  - *Vendor and FRG operations must gain approval from Veterinary Food Inspectors for their food sources prior to operating on Fort Jackson (does not apply to baked goods/sales).*
  - *After approval from Veterinary Food Inspectors, contact Environmental Health for final approval of operations.*

- Food booths/operations must have:
  - *Bi-metal stemmed thermometer capable of being calibrated to ±2°F.*
  - *Sterno, crockpot, or other hold holding device to keep food 140°F.*
  - *Self-draining ice chest to keep food cold.*
  - *Handwashing station must be available.*
  - *Garbage receptacle with lid.*
  - *Wiping cloths must be kept in a sanitizing solution of 100-200 ppm.*